

# It's All About Your Data

## VessRAID™ 1000i Series



### Quad Ports iSCSI-to-SAS/SATA RAID 6 Storage System Enjoy being Different with VessRAID

#### iSCSI + NAS, Exploit Storage with more Possibilities

VessRAID 1000i series provides iSCSI and NAS<sup>1</sup> combined features which enables users to do file and block-based data transaction on the network. iSCSI allows SCSI protocol to operate over TCP/IP and it's getting popular in various IP-based applications as you can leverage existing network infrastructure to achieve SAN connectivity. NAS devices are easy to deploy and ideal for file sharing over the network. Files on NAS are transparent to users and applications, and its access convenience greatly reduces users' learning curve on how to download and upload data to the storage. With iSCSI and NAS support, VessRAID leads user to explore broader storage applications and possibilities.

#### It's All about Your Security

Network Video Recorder (NVR) is an IP-based digital video recording system designed to operate 24/7, 365 days a year with non-stop A/V recording. This application demands reliable, scalable, and consolidated storage with simplified management capability. In a latest upgrade of NAS support, VessRAID 1000i series now offers a wide interoperable and flexible solution to ease the archiving complexity among heterogeneous recording platforms in a networked surveillance environment. With the upgrade users have more options to manage their storage provided by the VessRAID iSCSI system. The integration and management becomes less of an issue and you get the benefits of a either SAN or NAS with the economy and convenience of Ethernet.



#### ENERGY SAVING

Being green is important for business now. VessRAID features advanced hardware design using 80PLUS-certified power supplies<sup>2</sup>, and supports complete levels of MAID2.0 that both can greatly improve system's power effectiveness in management and reduce heat generation. In addition, the power scheduling function allows users to power off the system and performs a disk-to-disk backup or restore on a scheduled basis. As the task completes, system returns to standby until the next one starts, resulting in a considerable 70% cost savings annually.



#### SMART MANAGEMENT

OPAS is designed to reduce maintenance complexity and streamline an easier tech support workflow as much as possible. It provides a new level of user convenience unique to Promise. With a simple USB stick plugging in, it can perform system information retrieval, firmware auto upgrading, script for quick installation and password resetting.



#### COMPETITIVE PRICING

Economic slowdown worldwide have caused a number of businesses to either cut their IT budgets or delay their purchasing decisions for new storage equipments, yet there is still need for inexpensive and feature-rich storage solutions as data grows on a day to day basis. The VessRAID family of products provides a reliable data protection you expect from Promise to keep data online longer through a cost-effective way for businesses to easily meet storage demands.



#### System Highlights and Benefits

- :: Quad iSCSI 1Gbps ports
- :: Scale up to 112 hard disk drives via VessJBOD expansion units
- :: Client-to-Host Volume Clone, Box-to-Box Replication, and NAS Fusion
- :: SMB/CIFS, NFS, FTP support
- :: Microsoft ADS and Linux NIS support
- :: Disk and Directory Quota Management
- :: Predictive Data Migration (PDM)
- :: Optional 3rd party Acronis Backup & Recovery software
- :: Support Volume Copy
- :: Compact and lightweight system design
- :: Embedded I/O performance and power usage monitoring
- :: Single or Dual hot-swap redundant power supply unit with 80PLUS certified
- :: OPAS and UPS Monitor via USB
- :: Embedded web-based management via Ethernet – WebPAM PROe
- :: MAID 2.0 support
- :: Wake-on-LAN support (VessRAID)
- :: Wake-on-SAS support (VessJBOD)



<sup>1</sup> To enable NAS function, please update firmware to SR3 or later versions.

<sup>2</sup> Single PSU is 80 PLUS Bronze Certified, Redundant PSUs have 80 PLUS power efficiency

## VessRAID™ 1000i Series Specifications

VessRAID System	VessRAID 1720i+		VessRAID 1830i+	VessRAID 1840i+
System and Controller Features				
Form Factor	2U		2U	3U
Drive Support	8 Drives (3.5")		12 Drives (3.5")	16 Drives (3.5")
	SAS/SATA (6Gb/s¹ or 3Gb/s), NCQ, TCQ			
Controller	Single (Intel® IOP348 1.2GHz)			
Host Connectivity	Quad Ports 1Gbps iSCSI			
Scalability	N/A		Up to 108 drives via cascading VessJBODs	Up to 112 drives via cascading VessJBODs
Data Cache	2GB ECC cache memory with Optional BBU (Battery Backup Unit)			
NAS Features				
Supported Network Protocols	SMB/CIFS (MAC, Windows), NFS (Linux/Unix/MAC), FTP			
Data Services	Online Volume Clone, Box Replication, NAS Fusion			
Max. Size per Volume/No. per Volume	16TB/32			
Concurrent Sessions/Memory	32/512MB · 64/1GB · 128/2GB			
User Management	Microsoft ADS, Linux NIS			
Storage Resource Management	Support Disk and Directory Quota Management			
SmartNAVI Features	Backup/Restore Data, Scheduled Operation, User Management, Share Folder Administration, Auto-detect VessRAID and IP Assignment			
Operational Features				
RAID Levels	0, 1, 1E, 3, 5, 6, 10 (0+1), 30, 50, 60			
Hot spares	Global or Dedicated w/ revertible option			
Max. LUNs per subsystem/array	256/32			
Data Protection Features	Predictive Data Migration (PDM) Optional 3 <sup>rd</sup> party Acronis Backup & Recovery Software Support Volume Copy			
Green Features	Compact and Lightweight System Design Efficient 80PLUS Certified Power Supplies Embedded Power Consumption Module Full Levels of Intelligent Power Management MAID 2.0 Energy Savings on Power Scheduling			
System Management				
Supported OS	Windows XP, 2003, Vista, 2008² RedHat Linux, SuSE Linux, FreeBSD 7.0, CentOS VMWare ESX 4.0, ESX 4.0 U1, ESX 4.1, Citrix XenServer			
Management Tools	WebPAM PROe/SNMP via Ethernet CLI/CLU via RJ-11 or Ethernet LCD Control Panel (Optional) OPAS/UPS Monitor via USB			
Management Interfaces/Protocols	Ethernet, RJ-11 Serial Port, USB SNMP, SSL, Telnet, SLP			
Event Notification	Email , SNMP, NETSEND, Buzzer, LEDs, LCD Control Panel			
System Information				
AC Input	90 ~ 264 VAC, 47 ~ 63Hz			
Current (Maximum)	6A (100V); 3A (240V)		6A (100V); 3A (240V)	8A (100V); 4A (240V)
Power Supply	Single 350W 90-264V full-ranging w/PFC		Dual 350W 90-264V full-ranging w/PFC Hot swappable and redundant	Dual 450W 90-264V full-ranging w/PFC Hot swappable and redundant
FAN	Hot-swap Module, Redundant N+1 Design			
Temperature	5° ~ 40°C³ (-40° ~ 60°C non operational)			
Relative Humidity	10% to 80% non-condensing			
Dimensions (H x W x D)	88.2 x 446.2 x 461 mm 3.5 x 17.6 x 18.1 in		88.2 x 446.2 x 461 mm 3.5 x 17.6 x 18.1 in	130.1 x 446.2 x 461 mm 5.1 x 17.6 x 18.1 in
Weight	10.8 kg (23.81 lbs) w/o drives 16 kg (35.27 lbs) w/ drives		12.8 kg (28.22 lbs) w/o drives 20.6 kg (45.41 lbs) w/ drives	15 kg (33.07 lbs) w/o drives 25.4 kg (56 lbs) w/ drives
Safety/EMI	CE, FCC Class A, VCCI, BSMI, CB, KCC, C-Tick, UL/cUL, TUV			
Base Configuration	VessRAID 2U/3U Unit w/ Drive Carrier RJ11-to-DB9 Serial Data Cable, Power Cord (Single PSU: 1; Dual PSU: 2) Quick Start Guide, Set of Screws, CD (Product Manual, SNMP files, QSG)			
Warranty and Support				
Warranty	3 years limited warranty⁴			
Supported Hardware Options	LCD Panel, Front Bezel, Sliding Rail, Battery Backup Unit, SAS Cable			

<sup>1</sup>Initiator still operates at 3Gbps mode<sup>2</sup>Microsoft® WHQL for Windows Server 2003 and 2008<sup>3</sup>Operational Temperature between 5° ~ 35°C if BBU installed<sup>4</sup>BBU is covered by one year limited warranty

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